Amendments To the Claims:

Please amend the claims as shown. Applicants reserve the right to pursue any cancelled claims at a later date.

1.-4. (cancelled)

5. (new) A device for diagnosing obstructions in channels of a micro heat exchanger, comprising:

at least one temperature sensor arranged on an outside of the micro heat exchanger; and an evaluation unit connected to the at least one temperature sensor, wherein the evaluation unit diagnoses an obstruction on the basis of changes of a measured temperature, wherein

entry parameters of fluids involved in the heat exchange are unchanged.

- 6. (new) The device according claim 5, wherein the device is a detachable arrangement.
- 7. (new) The device according claim 5, wherein the outside is an outer surface of the micro heat exchanger.
- 8. (new) A device for diagnosing obstructions in channels of a micro heat exchanger, comprising:

at least one temperature sensor arranged on an outside of the micro heat exchanger; and a closed-loop control device connected to the at least one temperature sensor, wherein the closed-loop control device regulates a mass flow of fluids involved in the heat exchange in the sense of keeping the measured temperature constant, and wherein

the closed-loop control device diagnoses an obstruction on the basis of changes in the mass flow.

9. (new) The device according claim 8, wherein the device is a detachable arrangement.

- 10. (new) The device according claim 8, wherein the outside is an outer surface of the micro heat exchanger.
- 11. (new) A method for diagnosing obstructions in channels of a micro heat exchanger, comprising:

measuring a temperature of the micro heat exchanger at an outside of the micro heat exchanger; and

diagnosing an obstruction on the basis of changes of the measured temperature, wherein entry parameters of the fluids involved in the exchange of heat remain unchanged.

- 12. (new) The method according claim 11, wherein the measuring of the temperature is accomplished at at least one point on the outside of the micro heat exchanger.
- 13. (new) The method according claim 11, wherein the outside is an outer surface of the micro heat exchanger.
- 14. (new) A method for diagnosing obstructions in channels of a micro heat exchange, comprising:

measuring a temperature of the micro heat exchanger at an outside of the micro heat exchanger;

regulating a mass flow of one of the fluids involved in the heat exchange such that the measured temperature is constant; and

diagnosing an obstruction on the basis of changes of the mass flow.

- 15. (new) The method according claim 14, wherein the measuring of the temperature is accomplished at at least one point on the outside of the micro heat exchanger
- 16. (new) The method according claim 14, wherein more than one mass flows are regulated.
- 17. (new) The method according claim 14, wherein the outside is an outer surface of the micro heat exchanger.